

WHAT IS CLAIMED IS:

①. A system for aiding the preparation of operation and maintenance plans for a power generation installation, in which plant data are obtained from a plurality of power generation units, wherein for each of the plurality of power generation units, power generation efficiency for the concerned power generation unit is calculated by making use of the obtained plant data, and further wherein failure probability of machines and apparatus or the parts thereof in the plurality of power generation units is calculated, and operation and maintenance plans for the respective power generation units are prepared based on the calculated power generation efficiency and failure probability.

②. A system for aiding the preparation of operation and maintenance plans for a power generation installation, in which plant data are obtained from a plurality of power generation units, and wherein for each of the plurality of power generation units, power generation efficiency for the concerned power generation unit is calculated by making use of the obtained plant data, and further wherein failure history of machines and apparatus or the parts thereof in the plurality of power generation units is stored in a data base, failure probability of the respective machines and apparatus or the parts thereof is calculated by making use of the failure history stored in the data base, and operation and maintenance plans for the respective power generation units are

prepared based on the calculated power generation efficiency and failure probability.

3. ^{The} ~~A~~ system for aiding the preparation of operation and maintenance plans for a power generation installation according to claim 1, wherein a periodical inspection information data base representing information of periodical inspections is provided, and further wherein operation and maintenance plans for the respective power generation units are prepared based on the periodical inspection information stored in the periodical inspection information data base and the calculated power generation efficiency and failure probability.

4. ^{The} ~~A~~ system for aiding the preparation of operation and maintenance plans for a power generation installation according to claim 2, wherein a periodical inspection information data base representing information of periodical inspection is provided, and further wherein operation and maintenance plans for the respective power generation units are prepared based on the periodical inspection information stored in the periodical inspection information data base and the calculated power generation efficiency and failure probability.

5. A system for aiding the preparation of operation and maintenance plans for a power generation installation, comprising:

means for obtaining plant data from a plurality of power generation units and for calculating for each of the plurality of power generation units power generation efficiency for a concerned power generation unit by making use of the obtained plant data;

a periodical inspection information data base representing information of periodical inspections; and

means for evaluating failure frequency in the plurality of power generation units;

wherein operation and maintenance plans for the respective power generation units are set based on the periodical inspection information stored in the periodical inspection information data base, the calculated power generation efficiency and the evaluated failure frequency.

6. A method for aiding the preparation of operation and maintenance plans for a power generation installation, the method comprising the acts of:

obtaining plant data from a plurality of power generation units;

for each of the plurality of power generation units, calculating power generation efficiency for a concerned power generation unit by making use of the obtained plant data;

calculating failure probability of machines and apparatus or the parts thereof in the plurality of power generation units; and

setting operation and maintenance plans for the respective power generation units based on the calculated power generation efficiency and failure probability.

7. A method of aiding the preparation of operation and maintenance plans for a power generation installation, the method comprising the acts of:

obtaining plant data from a plurality of power generation units;

for each of the plurality of power generation units, calculating power generation efficiency for a concerned power generation unit by making use of the obtained plant data;

storing a failure history of machines and apparatus or the parts thereof in the plurality of power generation units in a data base;

calculating a failure probability of the respective machines and apparatus or the parts thereof by making use of the failure history stored in the data base; and

preparing operation and maintenance plans for the respective power generation units based on the calculated power generation efficiency and failure probability.